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ABSTRACT

A game designed to teach some of the skills used in behavior modification with slow learners was evaluated. The game, called "Modifying," was developed to increase the range of experience for students preparing to be special education teachers. A randomized, posttest-only design was employed. The design incorporated three treatments: conventional lecture, game and short discussion, and game with longer discussion and replay of the game. Two measures of the treatments' effects were utilized: a situational test of a special education classroom and a performance test which required each subject to teach a special education child a simple paper construction task using behavior modification. A recording was made of the number of positive reinforcements the subjects used in teaching the child. Preliminary results of the study suggest that there is a main treatment effect in favor of the game-discussion-game treatment level. (Author/JY)

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REPORT No. 116

OCTOBER, 1971

THE TRAINING EFFECTS OF A BEHAVIOR MODIFICATION GAME

STEVEN J. KIDDER

JOHN T. GUTHRIE

The Johns Hopkins University

STAFF

John L. Holland, Director

James M.McPartland, Assistant Director

Virginia Bailey

Thelma Baldwin

Zahava D. Blum

Judith P. Clark

James S. Coleman

David DeVries

Keith Edwards

Gail Fennessey

James Fennessey

Jean Finnegan

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Samuel Livingston

Edward L. McDill

Rebecca J. Muraro

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Aage B. Sørensen

Julian C. Stanley

Diana F. Ward

Phyllis K. Wilson

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THE TRAINING EFFECTS OF A BEHAVIOR MODIFICATION GAME

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Steven J. Kidder
John T. Guthrie

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The Johns Hopkins University
Baltimore, Maryland

INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through five programs to achieve its objectives. The Academic Games program has developed simulation games for use in the classroom. It is evaluating the effects of games on student learning and studying how games can improve interpersonal relations in the schools. The Social Accounts program is examining how a student's education affects his actual occupational attainment, and how education results in different vocational outcomes for blacks and whites. The Talents and Competencies program is studying the effects of educational experience on a wide range of human talents, competencies, and personal dispositions in order to formulate--and research--important educational goals other than traditional academic achievement. The School Organization program is currently concerned with the effects of student participation in social and educational decision-making, the structure of competition and cooperation, formal reward systems, effects of school quality, and the development of information systems for secondary schools. The Careers and Curricula program bases its work upon a theory of career development. It has developed a self-administered vocational guidance device to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the Academic Games Program, investigates the effects of an experimental version of a training game.

ACKNOWLEDGMENTS

The present study could not have been completed without the assistance of Alice Jackson, creator of the game Modifying. I am also indebted to Rubie Harris for her assistance in conducting the study and to Phyllis Wilson for her help in editing and typing the manuscript. In addition, the assistance of Dr. Lynn Caldwell in giving the lectures on behavior modification is acknowledged with appreciation.

ABSTRACT

This report provides a preliminary evaluation of a game designed to teach some of the skills used in behavior modification with slow learners. The game under consideration in this study was developed for increasing the range of experience for students preparing to be special education teachers. A randomized, post-test only design was employed. The design incorporated three treatments: (1) conventional lecture; (2) game; (3) game-discussion-game, plus a control group. Two measures of the treatments' effects were utilized: (1) a situational test of a special education classroom; (2) a performance test. The performance test required each subject to teach a special education child a simple paper construction task using behavior modification. A recording was made of the number of positive reinforcements the subject used in teaching the child. Preliminary results of the present study suggest that there is a main treatment effect with the game-discussion-game level having the greatest effect on the performance measure.

INTRODUCTION

The present study deals with the effects of an experimental version of a training game designed to provide teachers with some of the skills involved in applying behavior modification techniques while teaching children specific tasks.

Simulations for training teachers have been developed by Cruickshank, Broadbent, and Bubb (1967). More recently, Cruickshank (1969) created a simulation for sensitizing teachers to the problems of inner-city schools and desegregation. Both of these laboratory experiences were developed specifically for training purposes. Kersh (1961, 1963) and Twelker (1967) have developed relatively elatorate simulations in the area of preservice teacher training. Boardman (1969) has developed a more extensive training package with a computer-based model " . . . for maximizing both the feedback of an administrative simulation exercise and the analysis of the results." (Boardman, 1969:1).

Broadbent and Meehan (1971) recently completed a study analyzing the effects of a training simulation. Their simulation has objectives that are similar to those in the training game used in the present study. The authors developed "A Learning Disability Simulation for Classroom Teachers."

Their simulation was designed to increase the teacher's awareness, observational skills, willingness to seek ancillary help, and motivation to initiate remedial programs in her classroom (from Broadbent and Meehan, 1971:3). Their data analyses provided evidence in support of the simulation's effectiveness.

Due to the increase in the use of simulation for training versus teaching purposes, perhaps a brief clarification of the differences would be helpful. Shubik (1971) noted the difference as follows:

> In particular, the major distinction between teaching and training concerns the emphasis placed on the why of the process. There are several quite effective small games which can be of use in improving an individual's performance (training aspect) in production and inventory scheduling without ever going into the depths of why (teaching aspect) certain methods work. (Shubik, 1971:7)

Livingston and Stoll (in press) also believe that a meaningful difference can be made between games used primarily for training versus teaching:

> The goal of training is to increase the students' ability to perform in the real situation; the goal of teaching is to increase his knowledge and understanding of it. (Livingston and Stoll, 1971:14)

As noted above, the present study was designed to evaluate the training effects of a developmental version of the simulation game, Modifying.[1] In analyzing the learning effects of this game, the following treatments were investigated: (1) A conventional lecture on the material covered in the game; (2) one play of the game followed by a brief discussion (less

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[1]For later versions of the game Modifying, contact Academic Games Associates, 430 East 33rd Street, Baltimore, Maryland 21212.

than 10 minutes) of the game; and (3) one play of the game followed by a longer discussion (about 25 minutes) of the game followed by another play of the game. A control group received no treatment. It was hypothesized that the game/brief discussion and the game/discussion/game treatments would be superior to the Control and Lecture groups on a measure of performance in a simplified teaching situation, but not necessarily on a written test. The dependent measure in the performance test was the number of positive reinforcements used by the subject while teaching a special education student a simple paper-and-paste construction task. The written test was a paper-and-pencil instrument based on hypothetical classroom situations involving special education students.[1] Of secondary interest in the present study was an analysis of the reactions (i.e., test-order effects) of the measurement procedures used in assessing Modifying.

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[1]See Appendix for the complete written test.

METHOD

Forty-two education students at Coppin and Towson State Colleges in Maryland participated in the study and were paid for their services. The subjects were assigned randomly to one of the following treatment groups: (1) Control, (2) Lecture, (3) Game/Brief Discussion (GBD), and (4) Game/Discussion/Game (GDG).

Modifying is not a complex game, nor is it difficult to administer. Six participants are required to play the game in the form used in the present study. One subject plays the role of a special education teacher while the other five subjects play roles of special students (slightly impaired emotionally or intellectually). Each role has specific goals. As goals are attained, rewards are made in the form of points that are accumulated by each player. The teaching role is rewarded with "teacher-satisfaction" points; four points for each positive reinforcement she gives to a student, and fifty points for each student who completes the assignment (a paper construction task). Most of the student roles are rewarded with points for uncooperative behavior. It is possible for the teacher to acquire more satisfaction points than the sum of the points attainable by the students.

The study was conducted at the John F. Kennedy Institute for Habilitation of Physically and Mentally Handicapped Children in Baltimore, Maryland. The game treatments were administered in a standard conference room. Due to the self-explanatory nature of the game, the subjects were briefly introduced to the game by the experimenter, who subsequently left the

room, returning twice to answer any questions. The discussions and lectures on behavior modification were held in the same room. The lectures were given by a staff member of the Kennedy Institute who holds a Ph.D. in psychology and specializes in training adults to use behavior modification techniques.

After the subjects had completed their respective treatments they were assigned randomly to one of two test-order conditions: Condition I - Written test first, followed by performance test; and Condition II - Performance test first, followed by written test. Thus, the combined factors of treatment (with 4 levels) and test-order are represented by a 4 x 2 factorial design.

The written test was completed by the subjects in the conference room. The test consisted of five hypothetical situations designed to reflect the nature of a typical class of special education students. There were several objective-type items following each situation. The subjects were instructed to select an answer that provided a behavior modification solution to a problem presented in the hypothetical situation. There were 21 items completing the scale on the written test. Thus, the dependent variable on the latter test was the number of correct answers indicated by each subject. The internal consistency of the written test as measured by Kuder-Richardson Formula 20 was .70. The correlation between the written test and the performance test was .27 (see Introduction).

RESULTS

The analysis was based on a 4 x 2 factorial design where the four-level factor was the main treatment and the two-level factor was the test-order effect. Since two dependent variables were used, a multivariate analysis of variance (MANOVA) was conducted.[1] Table 1 indicates that the overall treatment effect was significant ($F = 2.79$, $df = 6/66$, $p < .02$); that a test-order effect was also present ($F = 2.87$, $df = 2/33$, $p < .07$); and that there were no significant interactions in the design ($F = 1.35$, $df = 6/66$, $p < .25$). Care should be taken when interpreting the probability level for the test-order effect. Because the objective was to establish that there was no effect (usually one is testing for an effect), the probability of the null hypothesis (i.e., no difference between test-order Condition I and Condition II) being true must be high. Referring to Table 1, the reader will notice that the latter condition is not met; thus, there is a significant test-order effect. The univariate test of the main effect was not significant for the written test ($F = 2.40$, $df = 3/34$, $p < .08$) but was significant for the performance test ($F = 2.95$, $df = 3/34$, $p < .046$). The step-down F test (controlling for written test) for the main effect on the performance test was also significant ($F = 3.27$, $df = 3/34$, $p < .03$). These results, along with the significant multivariate F test for the main effect, allow one

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[1] The analysis was computed at the computing center at the University of Maryland, College Park with the program Multivariance developed by Jeremy D. Finn, SUNY at Buffalo.

Table 1

MANOVA for Main Effects of
Treatment, Test-Order, and Interactions

Source of Variance	Multivariate F-Ratio	Degrees of Freedom	P less than
Treatment	2.79	6/66	.02
Test-Order	2.87	2/33	.07
Interactions	1.35	6/66	.25

to conclude that there were overall differences among treatment groups on the performance test but not on the written test. For the test-order factor, there was a significant difference on the performance test (Step-Down $F = 4.90$, $df = 1/34$, $p < .03$) but not on the written test ($F = 0.76$, $df = 1/34$, $p < .39$).

In order to clarify the nature of the treatment group differences noted above, the following simple contrasts were analyzed: (1) Lecture versus GBD, (2) GBD versus GDG, (3) Control plus Lecture versus GBD plus GDG. In analyzing the simple contrast of Lecture versus GBD, the multivariate F-ratio was not significant ($F = 2.87$, $df = 2/33$, $p < .07$); however, a step-down F-ratio on the performance test was significant near the .05 level (Step-Down $F = 2.89$, $df = 1/34$, $p < .057$). In analyzing the simple contrast of GBD versus GDG, the multivariate F-ratio was not significant ($F = 2.68$, $df = 2/33$, $p < .08$), while a step-down F-ratio on the performance test was significant (Step-Down $F = 4.26$, $df = 1/34$, $p < .047$).

Table 2 contains the observed cell means for both tests. Notice that performance on either test is highest when it is the first test taken by the subjects. However, for each dependent variable, one treatment did have the test given second as the higher of the two (i.e., the GBD treatment for the written test and the Control treatment for the performance test). As noted previously, there was a significant difference between the Lecture treatment and the GBD treatment on the performance test. The combined means for the performance test from Table 2 are 39.50 and 35.17 for Lecture and GBD, respectively. The treatment expected to

TABLE 2

Observed Cell Means for All Treatment Combinations

Treatment Combination	Means for Dependent Variables			
	Written Test		Performance Test	
	Taken First	Taken Second	Taken First	Taken Second
Control	12.67	12.00	10.25	10.83
Lecture	11.00	9.25	23.50	16.00
Game-Brief Discussion	13.33	14.83	19.17	16.00
Game-Discussion Game	14.17	11.33	37.00	17.00

have the greatest effect was the GDG, not the GBD treatment, therefore a comparison between the Lecture and GDG groups was evaluated with a Newman-Keuls test, choosing p = .05 as the level of significance. With the latter technique, the difference between these two groups was significant for the written test (W_r = 2.53, mean treatment difference = 2.63), but not for the performance test (W_r = 8.46, mean treatment difference = 7.33). The comparison for the performance measure was nearly significant. These Newman-Keuls tests suggest that the GDG treatment was the most effective.

In testing the simple contrast of Control plus Lecture versus GBD plus GDG (a game versus no game test), a univariate analysis for the written test was significant (F = 4.50, df = 1/34, $p < .04$), but not for the performance measure (F = 3.05, df = 1.34, $p < .09$).

To help clarify the treatment effects noted above, Figures 1 and 2 contain the means and 95% confidence intervals by treatments for the written and performance tests, respectively. These confidence intervals were constructed using the pooled within-cell variance for each dependent measure. Figure 1 is closed at the top to indicate that there was a maximum possible score on the written test.

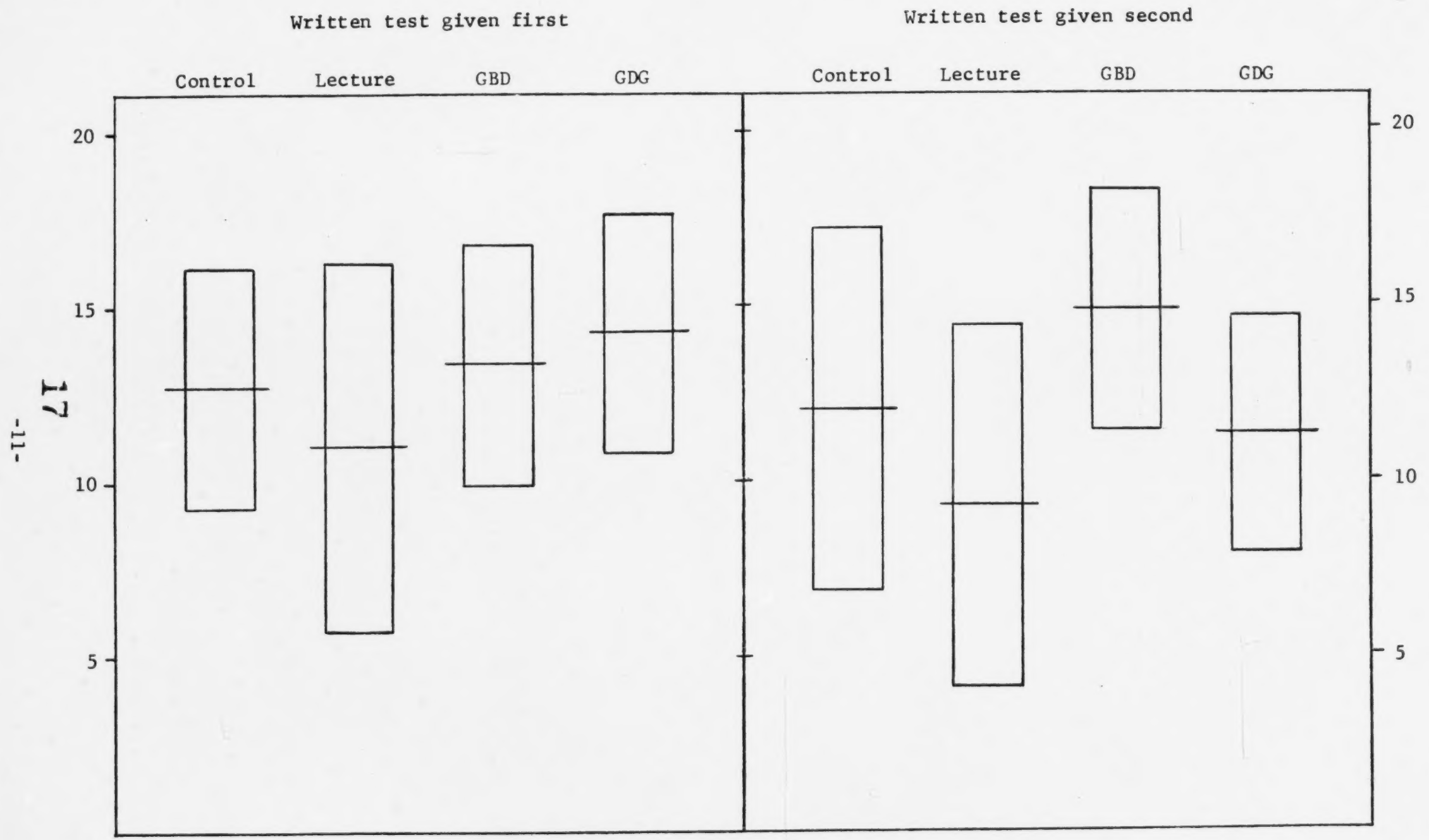

Figure 1. Written test: number of items correct.
Means and 95% confidence intervals.

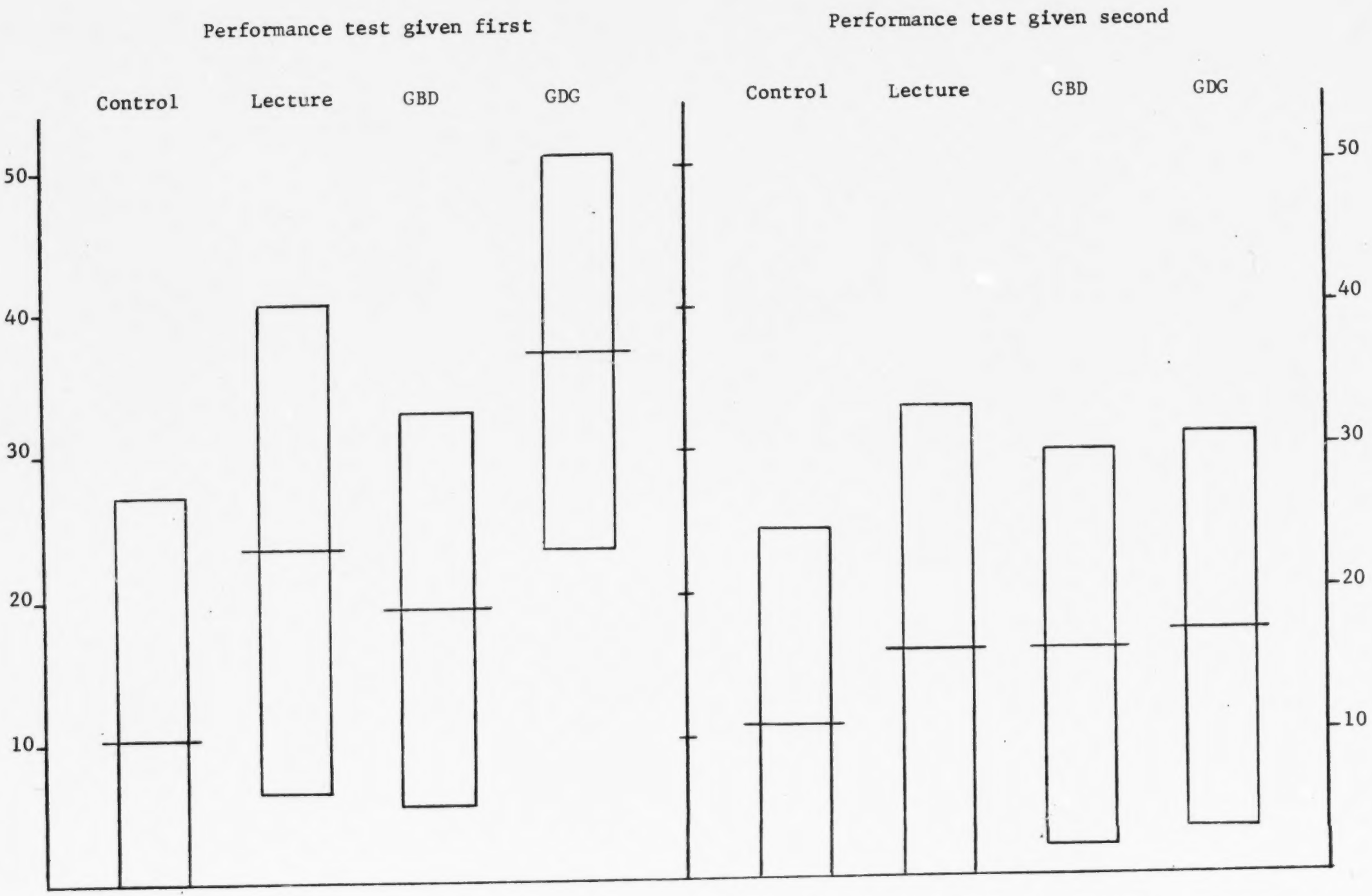

Figure 2. Performance test: number of positive reinforcements
Means and 95% confidence intervals.

DISCUSSION

The results of the present study indicate that one effective way to improve the training effects of a simulation game is to run it twice with a discussion between plays. This may be quite important when the criterion for evaluating the training effects is performance in the real situation. Figure 3 illustrates the effects of the four treatments used in the present study as measured by the written and performance tests. The data points are mean scores for those individuals taking that particular test first. Is the quality of performance in real situations directly related to the similarity of the training environment with the real environment? If so, then simulation game treatments should be more effective than lecture treatments. The general trend for performance on both measures (as shown in Figure 3) is an increase from the control treatment through the GDG treatment. This general effect was expected. The relatively poor result on the performance measure for the GBD treatment was not expected. A monotonically increasing function from the control group through the GDG group would have indicated the hypothesized relationship between the treatments and the performance measures. Further refinements in the game Modifying should improve its training effects. In fact, the results of the present study suggest that the impact of an improved version of the game might approximate the ideal relationship between treatment and performance noted above.

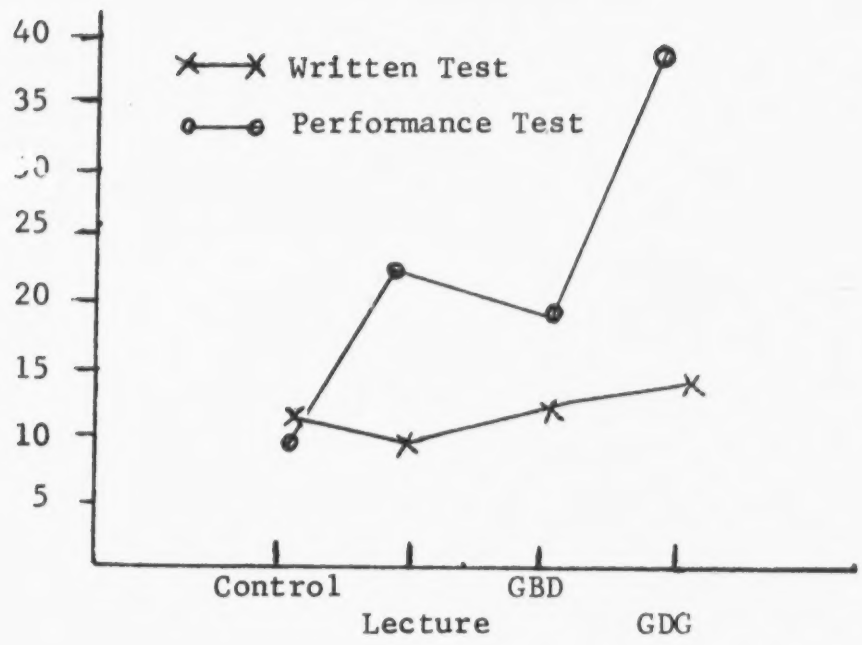

Figure 3. Mean Scores on Performance and Written Tests Administered First

It is usually taken for granted that training simulations should be evaluated with performance tests in real situations. This conclusion is related to the distinction between teaching and training simulations offered by Shubik (1971) and Livingston and Stoll (in press). As stated before, training simulations are designed primarily for improving real performance, not merely for increasing knowledge about the real situation. The latter objective could be tested with a paper-pencil device, but the former objective must be tested by observing the person functioning in the real environment. Few studies evaluating the training effects of simulation games have employed tests of real performance. In fact, research and interest in the use of simulation for performance and product evaluation (not for training purposes) is growing. (See especially Fitzpatrick and Morrison, 1971.)

The apparent confusion over the appropriate criterion for a particular type of training is primarily one of cost-effectiveness. In general, one would probably learn how to perform most effectively in an unfamiliar environment by specialized training in that environment. This is not practical, especially when the number of individuals seeking this specialized training is large, or the real equipment is sensitive to gross error. Under ideal conditions (i.e., training in the real performance environment) there should be no confusion between training procedures and testing procedures; that is, tests of particular training methods can simply be unobtrusive measures of performance in the identical environment without guidance or corrective feedback. When

ideal conditions are not available, then several combinations of simulation and standard technique for training and testing are appropriate.

The present study used the following combination of training and testing procedures: 1) simulation for training (the game treatments), 2) standard technique for training (the lecture treatment), 3) simulation for evaluation (the written test), and 4) standard technique for evaluation (the performance test). There was a tendency for the simulation game groups to outperform the lecture groups. The validity of the written test as a measure of performance is indicated by its slight positive correlation with the performance test ($r = .27$). The latter estimate is probably a lower bound for the written test's validity due to the unreliability of the performance test (a single unreplicated sample of performance). Even though paper-and-pencil tests of training simulations are not ideal, they may provide useful information when valid (statistically) and when reality testing is impractical. For teaching purposes, the validity of the measuring device may be less critical, since the objective of teaching is usually to impart knowledge and understanding of the real situation; in general, its role is not to improve performance in the real situation. But, for training purposes, valid measuring devices would eliminate poor performance under real conditions, and may improve the cost-effectiveness of the training procedure.

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APPENDIX

Name: _____ Date: _____

Today is the third day of school. You are working with three students in a special education class. The remainder of your class will not be attending school until you are satisfied with your control of this group.

Enclosed is a description of Jesse, Emil, and Yvonne as they work together making animals from oatmeal boxes. The objectives of this lesson are to learn to complete a simple task and to interact appropriately with peers.

Your control of this group of children may depend on your ability to shape appropriate behavior.

Lesson Plan

I. Student's Objectives:

to learn to complete a simple task

to interact appropriately with peers

II. Materials

1 completed animal

3 oatmeal boxes

12 popsicle sticks

construction paper

glue

string

crayons

III. Procedure:

1. Introduce the task of making animals
2. Begin assembly of the animals
   a. Child decides what animal to make
   b. Cover oatmeal box with construction paper
   c. Draw on box end features of the face, texture of fur, etc.
   d. Use string or pipe cleaners to make tail, glue at bottom
   e. Cut ears from construction paper, glue on head
   f. Cover popsicle sticks with paper, insert in holes in side of oatmeal box to form legs
   g. Tie ribbon around box at neck

IV. Evaluation:

A child is considered to have met the objectives if he completes one animal. He may be considered to interact appropriately with peers if he is able to talk with peers while working, and if he does not "pick" or "fight" with peers while working on the task.

It is 9 o'clock. Ten-year-old Yvonne enters the room first, carrying a grocery bag. She is large for her age, heavy set, and her hair is sticking up on top of her head as though it refuses to be brushed back. A little ribbon is perched on one strand of the wiry hair. She is wearing a black skirt and a blue blouse which is pinned in places. She goes to her desk and sits down to check through the contents of her bag. You ask her what's in it, and she replies that it contains sandwiches. She adds that there are two pieces of cake, and asks if you want a plum.

As Yvonne is peering into her lunch bag, Jesse, age ten, appears in the doorway wearing green shorts, a red striped tee shirt, and red plaid shoe strings in his tennis shoes. He holds his head high above his portly chest as he strides to his desk in the back corner of the room, deliberately bumping into Yvonne on the way. Yvonne slaps him on the arm. Jesse hits back--hard.

"Make Jesse stop hitting me!"

The skirmish is ended as Jesse moves to his desk.

Emil pokes his head in the door and then retreats. You call to him to come in and he does so. Emil, age nine, is wearing a ragged blue tee shirt, dungarees which are too little, and shoes which appear to be a man's size 10. The shoes flop when he walks, making his short stature appear quite comical. Emil comes directly to you to present to you a bag which contains two boxes of gerbil food. He beams with pride.

"That ain't nothing. Probably stole it." remarks Jesse from the corner of the room.

"I did not. I bought it with my own money. I <u>work</u>." responds Emil.

You have decided that behavior modification is the best technique to use to control and motivate the children in this group. Please emphasize rewarding good behavior and not rewarding bad behavior as you answer the questions following each excerpt. (Circle letter of best answer.)

1. In reaction to the above situation you would say to the children:

   a. Yvonne, I like the way you came in this morning. Emil, you may feed the gerbil at 10 o'clock. Jesse, thank you for going to your desk.

   b. Good morning boys and girls. Will you please sit down. We need to go over our class rules.

   c. I realize you boys and girls had a bad night last night. Let's try to get along at school. We want to like each other.

   d. Emil and Jesse, stop that fighting. If you don't I'll have to put one of you in the quiet corner. You don't want to miss our lesson, do you?

2. Yvonne may be described as:

   a. Large, heavy-set, and sloppily dressed

   b. Reacts to feelings of frustration by eating

   c. Cooperative and responsive to food

   d. Interested in boys and clothes

3. Jesse may be described as:

   a. Interested in sex

   b. Large and wears bright colors

   c. Aggressive and tries to get attention

   d. High-strung and likes to hit back

4. Emil may be described as:

   a. Comical because of his big shoes

   b. Sloppily dressed but nice

   c. Compensating for feelings of inferiority

   d. Wants attention, cooperative, and helpful

5. The best grouping pattern for these three children during the arts and crafts activity would be:

   a. All three children at a table

   b. Emil and Yvonne at a table with Jesse at his desk a good distance away

   c. Anywhere they want to be

   d. At their desks spaced several feet apart

6. Which technique of classroom management would you use with this group during the lesson?

   a. Make the lesson seem like fun and try to get everyone involved.

   b. Tell the children what you want them to do, praise them or give them something when they try to do what you ask.

   c. If a child does not do the work, ask him to sit in the hall.

   d. Move from child to child, helping, trying to make each child feel successful about the task.

All of the children are now seated. You begin to distribute the oatmeal boxes, the paper, scissors, and the glue. You ask Yvonne to put away her lunch so that she will be ready to work.

"I don't want to make that old animal," responds Yvonne. "Who cares about an old animal."

Emil seems anxious to get his materials and begins cutting as soon as he gets the paper, before you explain what to do. He whacks into the biggest sheet of paper, cuts out an animal shape, wads the rest of the paper up and throws it away. He glues the vague animal shape to the side of the oatmeal box.

"I'm finished," he yells proudly.

"That ain't nothing," snaps Jesse, "you don't even know what to do." Jesse is carefully laying out his materials nearby. He holds his scissors in his hand. "I don't know what to make."

7. Which child will you deal with first to get him started on the task?

   a. Jesse, since he is the most likely person to disrupt the rest of the group.

   b. Yvonne, because you can tell her how exciting an animal is to make.

   c. Emil, because he is eager to work.

   d. Jesse, using his behavior to demonstrate how to get ready to begin work.

8. The best way to handle Emil would be:

   a. Tell him to stop and wait for directions or he will not be allowed to make the animal.

   b. Praise his interest and give instructions, using a model.

   c. Accept his completed product and put it in the display case.

   d. Tell him that his animal is awful and that he will have to start over.

9. The best way to handle Jesse would be:

   a. Correct his use of ain't, and ask him not to call out.

   b. Praise the way he is getting ready to work and ask him what his favorite animal is.

   c. Give him brief instructions and leave him alone.

   d. Tell him that he is a big boy and probably knows about lots of animals.

10. The best way to handle Yvonne would be:

   a. Explain to her why she has to work and stand with her until she starts working.

   b. Ask her to put her lunch on the teacher's desk and get ready for work.

   c. Take away her lunch and ignore her until she looks as though she is getting ready to work.

   d. Tell her she will have to leave the room if she does not do the project with everyone else.

Somehow, you get all of the children started on the task. Jesse gets up to get a ruler, bumping into Emil's chair on his way. Emil's temper flares, and jumps up to hit Jesse who saunters off to get his ruler. Seeing that Jesse is out of range he murmurs, "You better quit that, Jesse, teacher's going to get you."

Jesse returns to his seat, looks at Emil's shoes and chuckles softly, then begins to concentrate on his animal, working carefully and slowly.

Emil flings his oatmeal box across the room, folds his arms across his chest, and pokes his lower lip out.

Yvonne watches the action as she piddles at making her animal. "You boys better quit that, or you're goin' to get throwed out."

11. Which behavior would you deal with first?

    a. Yvonne, tell her that you're the teacher and that you will manage the boys' behavior.

    b. Yvonne, praise her for continuing her work, and offer her extra materials to make her animal special.

    c. Emil, tell him that he should get back to work, that you are going to talk to Jesse.

    d. Jesse, tell him not to bump into people and not to make fun of Emil's big shoes.

12. The best action to take with Emil is:

    a. Tell him that he should get back to work, that you are going to talk to Jesse.

    b. Give him a new set of materials and repeat the instructions, explaining that he shouldn't throw things.

    c. Hug him, tell him that you will take him after school to get new shoes.

    d. Ignore him until he retrieves his box and seems ready to work.

13. The best action to take with Jesse is:

    a. Reprimand him for his conduct in the classroom and tell him that it will not be tolerated again.

    b. Praise him for finally getting to work and praise him whenever he is not bothering others.

    c. Ask him to go to the quiet corner for a few minutes.

    d. Have a long talk with him about why he picks on others and try to get him to resolve to stop.

14. The best action to take with Yvonne is:

    a. Tell her that you're the teacher and that you will manage the boys' behavior.

    b. Praise her for continuing her work, and offer her extra materials to make her animal special.

    c. Tell her to be quiet, that talking is not allowed during the lesson.

    d. Ignore her actions, and hope that she quits piddling and finishes her work.

The animals are progressing pretty well. Jesse has delicately decorated the body and is carefully shaping the ears. He sets up a notebook beside where he is working so no one can see what he's doing. When you approach to check what he's doing, he says, "It's going to be a surprise."

Yvonne has sloppily finished her dog, and it looks pretty immature. She slumps down in her chair, reaching for the bag. "I'm finished. Can I eat my lunch now?"

With a lot of help from you, Emil is now busily engaged in making his animal. He still works quickly, just drawing on the tail, legs, and ears, trying to finish before Jesse does.

15. What would you do at this point?

    a. Let Jesse and Emil continue working and help Yvonne make her animal look better.

    b. Move from student to student helping and making suggestions which will make the animals look more realistic.

    c. Praise those students who are working and ignore them when they are not working, even if Yvonne eats her lunch.

    d. Since she has finished, let Yvonne eat one of her pieces of cake.

16. How would you deal with Emil?

    a. Repeat the instructions for making the animal and ask him if he is following them.

    b. Tell him that he is making his animal all wrong again and show him how to put the legs on.

    c. Leave him alone so that he can work quietly.

    d. Praise him for working hard, suggesting that he might do better if he doesn't work so fast.

17. How would you deal with Jesse?

    a. Show interest in his surprise and look very secretive.

    b. Praise him for working quietly and ignore his secretive behavior.

    c. Tell Jesse that he is not being very friendly with the other students and that he should take down the notebook.

    d. Leave him alone so that he can work quietly by himself.

18. How would you deal with Yvonne?

    a. Point out her poor work and make her try to improve it, telling her that it is not time for lunch.

    b. Since she has finished, let her eat one of her pieces of cake.

    c. Praise her because she finished first and let her take her animal to show to a friend.

    d. Praise her for working and make suggestions for changes which will make her animal even better.

Jesse finishes his sheep with a great flourish. It is covered with circles representing the curly wool, has a soft little tail, and perfectly shaped ears lined with pink. The features of the face are drawn with attention to detail.

Yvonne, noticing Jesse's sheep fixes her animal up a bit, straightening the ears, re-gluing the tail that keeps falling off. In his way, the dog seems to have a haphazard personality.

Emil, in anger at Jesse's success throws his pig across the room. Finally, he rescues it, straightening the legs.

19. How will you conclude the task?

    a. Put all the animals up on the wall and tell the children they did a nice job.

    b. Give Jesse a blue ribbon because his animal is the best.

    c. Give each child his choice of a toy from the toy box or a candy bar as he puts his animal in the display area.

    d. Clean up the mess and go out to play.

20. The best description of Yvonne during the lesson is:

    a. Alert and willing to correct mistakes

    b. Disinterested, but willing to cooperate

    c. Talkative and bossy

    d. Lazy, unwilling and spoiled

21. The best description of Emil during the lesson is:

    a. Jealous and easily frustrated

    b. Uncontrollable and slightly psychotic

    c. Deprived and uncultured

    d. Mean and maneuvering